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SUBJECT: GALILEO PUBLIC REGULATED SERVICE MAY REQUIRE  
CHINESE BLESSING

REF: A. BERLIN 429  
[1](#)B. 08 BERLIN 264  
[1](#)C. 08 BERLIN 315  
[1](#)D. 08 BERLIN 897  
[1](#)E. 08 MUNICH 409

Classified By: Global Affairs Unit Chief Don L. Brown for  
reasons 1.4 (b) and (d).

[1](#)1. SUMMARY: (C) The Galileo Public Regulated Service (PRS) is presumably critical for the EU as a pillar for national security and as the nucleus of Galileo's business model, but PRS appears to be stalling out. PRS faces four obstacles: 1) a conflict between civilian control and military end-use, 2) underwhelming customer demand, 3) the lack of a robust legal structure to address PRS liability, and 4) (the biggest obstacle)--a frequency overlay conflict with China's COMPASS Global Navigation Satellite System (GNSS) system which could degrade localized PRS performance if COMPASS signals were to be jammed. If China's frequency plans for COMPASS, continue the current trajectory, Galileo may legally require Chinese permission to transmit PRS. This is the second in a series of cables derived from information presented at the 7th Annual Munich Satellite Navigation Summit, held March 3-5.  
END SUMMARY

PRS - A MILITARY SIGNAL UNDER CIVILIAN CONTROL?  
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[1](#)2. (SBU) Although Galileo is a "civilian" signal under "civilian control," conference presenters indicated that the military will be the dominant end-user of PRS - which contradicts one of Galileo's core principles as a "non-military system." In the opening plenary, Jean-Jacques Dordain, ESA Director-General (Paris), bluntly stated, "Galileo is required for all citizens of the world and is not for military purposes." However, Oliver Crop of the Galileo Supervisory Authority (GSA), stated that defense is the core market driver for PRS. This sentiment was echoed by Col Dr. Friedrich Teichmenn, Austrian Ministry of Defense (MOD), who stated that the Austrian MOD estimated that the military will account for 70 percent of PRS end-use.

[1](#)3. (SBU) The fact that PRS will be under civilian control with the military acting as the primary recipient of PRS services has some European military officials feeling uneasy. Richard Peckman, EADS Astrium Business Development Director (UK) said that military users do not want civilian access to the PRS encryption keys. Peckman added that control of PRS

still needs to be clarified--particularly who will have access to the encryption keys and under what conditions.

#### COMMERCIAL INDUSTRY UNSURE WHAT TO DO WITH PRS

14. (SBU) Thus far, the response from European industry regarding the demand for PRS has been lackluster at best. Anna Sta, UK Department of Transportation Head of Aerospace Division, said her office performed a study to analyze the potential industry demand (non-aviation) for PRS services under a fee-for-service structure. After conclusion of the study, Sta said only five "individuals" responded to the questionnaire as having possible interest in PRS. (Comment: there was significant laughter in the room after this announcement was made. END COMMENT) In addition, Sta said that the UK military has identified no need at all for PRS services.

#### LEGAL ISSUES SURROUNDING PRS LIABILITY OFFERINGS

15. (SBU) A cornerstone of Galileo's business model is the offer of liability coverage insuring Galileo Commercial Service (CS) and PRS customers signal availability and integrity. This is an intriguing concept that clearly separates the "civilian-run" Galileo program from all other worldwide GNSS systems, which are government run. The conference included a panel session addressing legal issues surrounding Galileo's intentions to provide liability coverage for CS and PRS signals. The panelists all agreed

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that the establishment of the legal structures required for these signals will take much more time and money than Galileo officials expect.

16. (SBU) Dr. Oliver Heinrich, a legal advisor from BHO Legal in Cologne, Germany, commented that Galileo is not just a technical challenge, but also a legal challenge that needs to be addressed now. Heinrich argued that "without sufficient liability" in place, one would have to question the "right for Galileo to exist." Heinrich pointed out that the European Geostationary Navigation Overlay Service (EGNOS), a pillar of Galileo's liability scheme designed to augment existing GNSS signal in order to certify safety critical applications, will be here in 2010 and that "there is still no resolution on the liability structure - this is a big problem." He added, if the EU does not get this resolved soon, "they should start looking for outside insurance now." Heike Wieland, GSA Head of Legal Office, also pointed out that nowhere in the 3.4 billion euro FOC budget are potential non-contractual liabilities accounted for - an issue that could potentially further jeopardize Galileo's "maxed-out" budget.

#### FREQUENCY OVERLAY ISSUE WITH CHINA REMAINS A BIG PROBLEM

17. (SBU) The Galileo/Compass frequency overlay issue is a problem that does not appear headed for resolution. According to open press reporting, this frequency overlap could potentially have a significant destructive effect on Galileo's PRS signal - possibly rendering it useless (in certain circumstances). With both systems continuing to press forward with their overlapping frequency plans, China appears better positioned to lay legal claim to the contended frequencies with a strategy to get their satellites in orbit (10 launches planned in the next two years) before Galileo. Paul Verhoef, EC Head of Unit for Galileo and Intelligent Transport, and Yin Jun, Chinese Ministry of Science and Technology Director of European Affairs, both addressed this issue but could only say that negotiations are still ongoing with no significant breakthroughs. Verhoef, conceding that discussions are going much slower than expected, noted that "the current race is towards power levels" (a reference to

the entity that can get its satellites up faster and can blanket coverage on the disputed frequencies). Verhoef announced that the next planned meeting with China on the frequency issue will be in early June this year.

¶8. (SBU) According to open press reporting, under the International Telecommunications Union policies, the first country to start using a specific frequency band is granted priority status (the owner), and subsequent service providers are in an inferior position and required to obtain permission from the band owner before they can transmit. China is taking full advantage of this legal situation and their launch schedule clearly puts them in the driver's seat. According to open press reports, Paul Verhoef noted that the Chinese have been tactically quiet early on about their frequency plans and said "Our sense is that in the last few years the Chinese developed their own ideas for their own system and have not really talked to anyone else - not to us, nor the Americans and nor to the Russians." Further complicating this issue, is the fact that there is no other bandwidth that Galileo could move to without overlaying on GPS - which Galileo can not do per a USG/EU agreement.

¶9. (C) Jun emphasized China's early investment in Galileo-- 70 million euro in the In Orbit Validation (IOV) phase and 35 million euro in Galileo applications, and to that end noted his disappointment in China's lack of "allowed" involvement in Galileo, citing "barriers in the IOV phase" and "difficulties" for any kind of participation in the FOC phase. China's strong early interest and investment in Galileo likely was motivated by their desire for exposure to Galileo's core technologies, particularly the rubidium clock, in order to advance their "indigenous" Compass system. The fact that Galileo officials are being careful to keep China a safe distance away from Galileo's core technologies cannot be helping the negotiating process on the frequency overlay issue.

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#### COMMENT

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¶10. (C) The future outlook for frequency negotiations for Galileo does not look good. The Chinese are playing hardball and are likely not willing to budge from their frequency plans unless they receive something significant in return from the EU - perhaps in the form of technology exposure. The EU remains extremely protective of Galileo's crown jewel of technology, their rubidium clock, and relaxed access of this technology to the Chinese in particular would jeopardize any competitive technological edge for Galileo. With the Chinese leading the race to orbit and thereby firmly planting their frequency flag ahead of Galileo, this will likely put the EU in a position of inferiority and seriously degrade their negotiating leverage.

¶11. (C) If China legally wins claim to their desired frequency band and the destructive effects on the PRS signal are significant, this could be jeopardize PRS ability to provide to its customers robust service at all times and in all circumstances. It should be noted that the COMPASS overlay will likely not degrade PRS from an routine use standpoint; rather, what is negatively impacted is localized use of PRS while at the same time COMPASS signals are being jammed - possibly in a crisis situation.

Koenig